

Work Order ID 53540

November 9, 2009 8:34:23 AM



Page 1

Item ID: D2580-1

Accept



Setup Start



Revision ID: D

Stop



Item Name: 205 Skidtube bent detail

Start Date: 09/11/2009 Start Qty: 2.00



Cust Item ID:

Required Date: 12/11/2009 Req'd Qty: 2.00



Customer:

Reference:

Approvals:

Process Plan:

RR

Date:

09/11/09

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run Start



Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	----------------	--------------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
D2580	Rev D

100

0.00



HandFinish

Memo

0.00

Hand Finishing

1- Inspect mat'l D2500-1-190 for damage.

2- Chemical Conversion Coat as per QSI 005 4.1

2 - 1 AWM 9.11.26

101

QC3- Inspect Part Finish

0.00



QC

Memo

0.00

Quality Control

2 1 9/11/26

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Page 2

Item ID: D2580-1

Accept



Setup Start



Revision ID: D

Stop



Item Name: 205 Skidtube bent detail

Start Date: 09/11/2009 Start Qty: 2.00



Cust Item ID:

Required Date: 12/11/2009 Req'd Qty: 2.00



Customer:

Reference:

Run Start



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev.

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

110

0.00



Skidtubes

Skidtubes

Memo

0.00

1-Drill pilot holes using drill jig DT 8149 (Do not use cutting fluid)

2-Open holes to 0.500" as per Dwg D2580 without cutting fluid

3-Deburr and blow out all chips from inside of tube

4-Bond web in place per QSI 015.

□□

A/R Sikaflex-291 batch: 112395 □□□

Sikaflex expire date: 10-02-20

Start time: 11:00 bond for 12hrs

2 -

1 QUNT-1122

130

QC5- Inspect part completeness to step on W/O

0.00



QC

Quality Control

Memo

0.00

MS 09-11-26

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Page 3

Item ID: D2580-1

Accept



Setup Start



Revision ID: D

Stop



Item Name: 205 Skidtube bent detail

Start Date: 09/11/2009 Start Qty: 2.00



Cust Item ID:

Required Date: 12/11/2009 Req'd Qty: 2.00



Customer:

Reference:

Run Start



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev.

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

140

Identify as per dwg & Stock Location:

0.00



Packaging

Memo

0.00

Packaging

Skidcell

DP

9-11-30

(2)

150

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

09/11/30

09-11-30
(2)

Picklist Print

November 9, 2009 8:34:29 AM

Page 1

Work Order ID: 53540

Parent Item: D2580-1RevD

Parent Item Name: 205 Skidtube bent detail

Start Date: 09/11/2009

Required Date: 12/11/2009

Comments:

Start Qty: 2.00

Required Qty: 2.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D2500-1-190RevG		Manufactured	No				Each	143.0000	2.0000			
Ext'n - I Beam Tube 4"												

Warehouse Loc Qty Loc Code
Location

Main Warehouse

LG	140
50166	39
52319	101

Main Warehouse

ST	3
46468	3

D2596RevD

Manufactured No

110 Each 9.0000 2.0000



Web, 205 Skidtube

Warehouse Loc Qty Loc Code
Location

Main Warehouse

LG	9
51528	4
53263	5

AWM 9-10-26 (2)

AWM 9-11-26 (2)

DART

DESIGN <i>[Signature]</i>	DRAWN BY <i>[Signature]</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D2580	REV. D SHEET 1 OF 3
DATE 07.02.27		TITLE 205 SKIDTUBE ASSEMBLY	SCALE NTS
A	96.09.16	NEW ISSUE	
B	96.12.02	AS MANUFACTURED	
C	98.08.26	REDRAWN, INCLUDED DEO 9094/9097	
D	07.02.27	CHANGE TO SS WEARPLATES AND GASKETS, INCLUDE DEO 9124/9183	

RELEASED
07.06.28 *[Signature]*

QTY -041	QTY -045	Part Number	Description
X		D2580-041	SKIDTUBE ASSEMBLY
	X	D2580-045	SKIDTUBE ASSEMBLY
1	1	D2500-1-190	EXTRUSION
1	1	D2576-3	STEP
20	24	D2579	CROSS BOLT SPACER
16	16	D2594-1	PLUG
16	16	D2594-3	O-RING
1	1	D2596	205 WEB
1	1	D2855	AFT CAP
1	1	D3564-5	WEARSHOE
1	1	D3564-9	WEARSHOE
1	1	D3564-11	WEARSHOE
1	1	D3564-13	WEARSHOE
2	2	D3566-1	GASKET
1	1	D3566-5	GASKET
1	1	D3566-13	GASKET
50	50	ALS7-1032-130 or AKS7-1032-130 or AKS4-1032-130 or AELS-1032-130	INSERT
50	50	AN3C4A	BOLT
2	2	AN3-5A	BOLT
50	50	AN960C10L	WASHER
2	2	AN960JD10L	WASHER

CONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 53540
B409-11-9

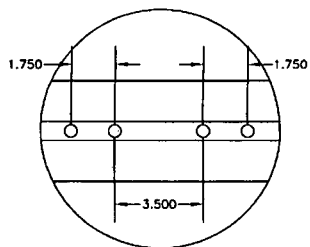
GENERAL NOTES:

- 1) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 2) ALL DIMENSIONS ARE IN INCHES
- 3) INSERT D2596 WEB TO LOCATION SHOWN OFF AFT END OF SKIDTUBE AND BOND WEB INTO OUTER TUBE WITH NON-STRUCTURAL SIKAFLEX-241 ADHESIVE PER DART QSI 015 BEFORE BENDING. ENSURE HOLES LINE-UP.
- 4) BEND AS A SMOOTH RADIUS STARTING WITH A MAXIMUM CENTERLINE RADIUS OF 60 AND ENDING WITH A MINIMUM RADIUS OF 30. A MAXIMUM REDUCTION OF 0.200 IN DIAMETER IS ALLOWABLE IN THE BENT PORTION OF THE TUBE.
- 5) USE DART DRILL TEMPLATE TD2577-205 TO LOCATE AND DRILL Ø0.297 HOLES FOR WEARSHOE INSERTS. INSTALL ALS7-1032-130 PER SECTION D-D (50 PLACES) AFTER FINISH. INSTALL AN3C4A BOLTS AND AN960C10L WASHERS WITH SIKAFLEX-241/-291.
- 6) WELDING TO BE DONE PER DART QSI 004.
- 7) FINISH:
SEE NOTES ON
PAGE 2 FOR D2580-041 AND
PAGE 3 FOR D2580-045
- 8) INSERT D2594-1 PLUG C/W D2594-3 O-RING IN HOLES MARKED 'P' (BOTH SIDES OF TUBE) AFTER FINISH (16 PLACES).

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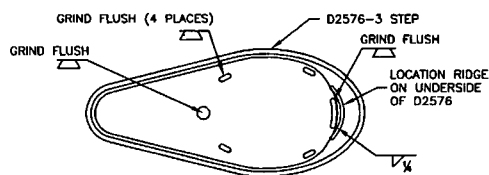
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DETAIL A
SCALE 5:24

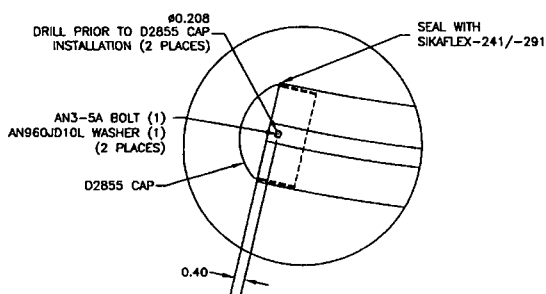


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07.06.28

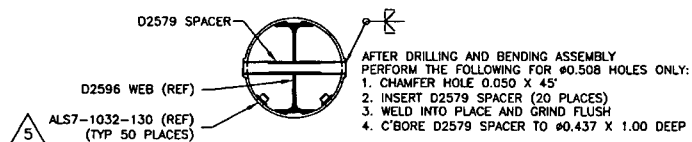
DETAIL B
SCALE 5:24



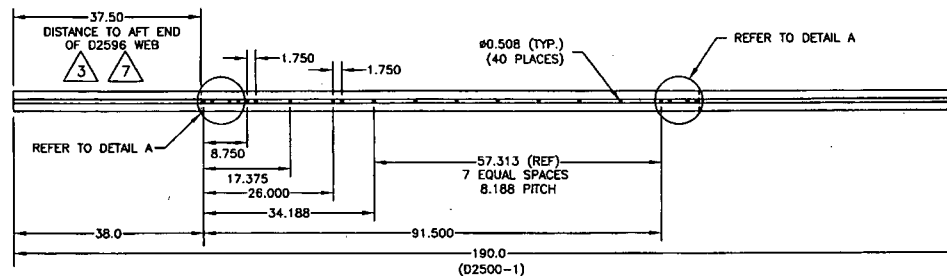
DETAIL C
SCALE 5:24



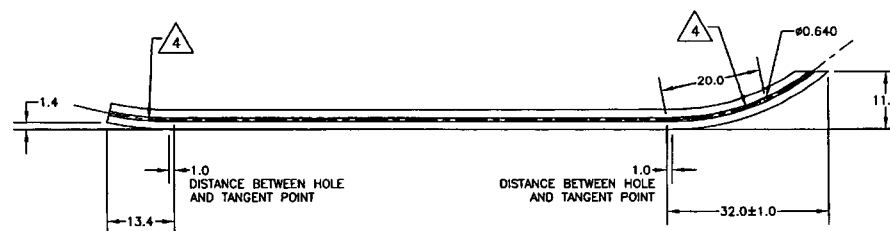
SECTION D-D
SCALE 5:24



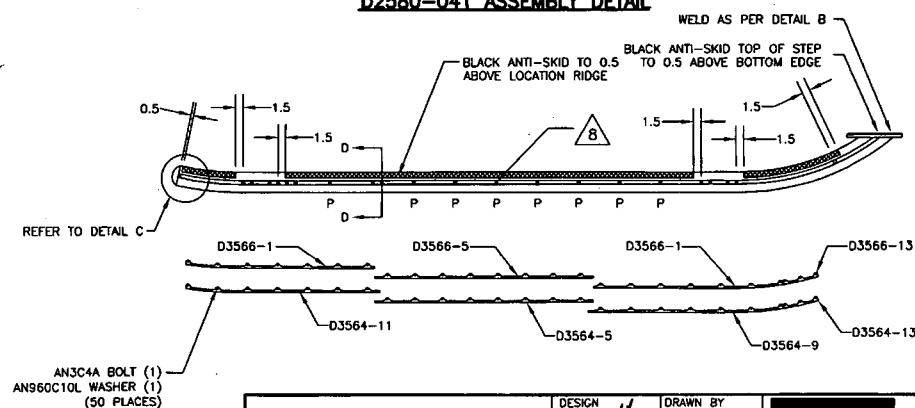
D2580-1 DRILLING DETAIL



D2580-1 BENDING AND CUTTING DETAIL



D2580-041 ASSEMBLY DETAIL



D2580-041 NOTES

- i) FINISH: ACID ETCH, ALODINE PER DART QSI 005 4.1 PRIOR TO INSERTING D2596 WEB
POWDER COAT ASSEMBLY GLOSS WHITE (REF. 4.3.5.1) PER DART QSI 005 4.3
BLACK ANTI-SKID PAINT AS INDICATED PER DART QSI 005 4.4

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DESIGN
CHECKED
DATE
07.02.27

DRAWN BY
APPROVED

DART	DART AEROSPACE LTD. WILLOWDALE, ONTARIO, CANADA
DRAWING NO. D2580	REV. D SHEET 2 OF 3
TITLE 205 SKIDTUBE ASSEMBLY	SCALE 1:24

RELEASED
07-06-28

Diagram illustrating the underside of the D2576-3 step, showing the locations for grinding flush and the location ridge on the underside of the D2576.

Labels and features:

- GRIND FLUSH (4 PLACES)
- GRIND FLUSH
- D2576-3 STEP
- LOCATION RIDGE ON UNDERSIDE OF D2576
- $\frac{1}{4}$

Diagram illustrating the rear view of the engine cover assembly. The diagram shows the installation of the D2855 cap and the AN3-5A bolt. The following components and instructions are labeled:

- DRILL PRIOR TO D2855 CAP INSTALLATION (2 PLACES)
- SEAL WITH SIKAFLEX-241/-291
- AN3-5A BOLT (1)
- AN96DJ10L WASHER (1) (2 PLACES)
- D2855 CAP
- SEE NOTE ii)
- 0.40

D2579 SPACER

D2596 WEB (REF)

ALS7-1032-130 (REF)
(TYP 50 PLACES)

AFTER PERFOR

1. CHA
2. INSU
3. WEL
4. C'B

AFTER DRILLING AND BENDING ASSEMBLY
 PERFORM THE FOLLOWING FOR #0.508 HOLES ONLY:
 1. CHAMFER HOLE 0.050 X 45°
 2. INSERT D2579 SPACER (20 PLACES)
 3. WELD INTO PLACE AND GRIND FLUSH
 4. C'BORE D2579 SPACER TO #0.437 X 1.00 DEEP

SHOP COPY
RETURNED
ENGINE
UNCONTROLLED
SUBJECT TO
WITHOUT
WORK
NO. 53540

37.50

DISTANCE TO AFT END OF D2596 WEB

3

7

1.750

1.750

#0.508 (TYP.) (40 PLACES)

REFER TO DETAIL E

REFER TO DETAIL A

8.750

17.375

26.000

34.188

57.313 (REF.)

7 EQUAL SPACES

8.188 PITCH

38.0

91.500

190.0

(D2500-1)

(MAKE FROM D2580-1 DRILLING DETAIL)

Technical drawing of a curved pipe section. Dimensions and callouts include:


- Overall length: 51.340
- Distance from left end to first hole: 5.985
- Distance between first and second hole: 5.338 (REF)
- Distance from second hole to third hole: 39.580
- Distance from third hole to end: 5.915
- Hole diameter: $\phi 0.508$ (8 PLACES)
- Radius of curvature: 20.0
- End hole diameter: $\phi 0.640$
- Distance between hole and tangent point (left): 1.0
- Distance between hole and tangent point (right): 1.0
- Overall distance between tangent points: 32.0 \pm 1.0
- Left end offset: 1.4
- Left end callout: 4
- Right end callout: 4

[illegible]

i) FINISH: ACID ETCH, ALODINE PER DART QSI 005 4.1 PRIOR TO INSERTING D2596 WEB
POWDER COAT ENTIRE ASSEMBLY GREEN (REF. 4.3.5.8) PER DART QSI 005 4.3
BLACK ANTI-SKID PAINT AS INDICATED PER DART QSI 005 4.4

ii) IT IS ACCEPTABLE TO GRIND A RELIEF IN THE D2855 AFT CAP TO PREVENT INTERFERENCE
WITH THE SPACER AT THIS LOCATION

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PH
CHECKED 
DATE 07.02.27

	RH
-	APPROVED <i>[Signature]</i>

DRAWING NO.	D2580
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REV. D
SHEET 3 OF 3

REV. D

SHEET 3 OF 3

SCALE

1:24